

**METAL(8-HYDROXYQUINOLINE)-FUNCTIONALIZED POLYMERS
POLYMERS AND RELATED MATERIALS AND METHODS OF
MAKING AND USING THE SAME**

Abstract

This invention relates to the synthesis of Mq_n -containing monomeric compounds, comprising a polymerizable moiety, an Mq_n -moiety, and an optional chemical spacer therebetween, wherein q , in each instance, comprises an 8-hydroxyquinoline residue, M is a metal such as Mg, Zn, Al, Ga, or In, and n is 2 or 3 as the valence of the metal requires. For example, the polymerization of Znq_2 - or Alq_3 -containing monomers, in the presence or absence of a co-monomer, provided a Znq_2 - or Alq_3 -containing polymer, which retained the optical properties of Znq_2 or Alq_3 in solution, respectively. The Mq_n -containing polymers may be used in, among other things, the fabrication of light-emitting diodes (LEDs).

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